

Federal Agencies Audio-Visual Digitization Working Group

Held at the Library of Congress, September 23, 2008

Abstract: Six agencies represented, discussion of four tasks for a consultant to plan and provide cost estimates for future activities: (i) documenting specifications for MXF wrapping JPEG 2000 and uncompressed video, (ii) embedding metadata in audio files, (iii) testing audio digitization system performance, and (iv) convening a roundtable of video engineers to discuss practices for playback and digitization of videotapes..

This meeting pertained to a consultancy to plan future activities for which contracted experts and other providers would be engaged, funding permitting. We discussed two draft statements of work (SOWs) for sound recordings and two for video. These are “scoping” consultancies to develop estimates for the level of effort the future activities will require.

Sound recording SOWs

Assess Audio-system Evaluation Tools and Plan the Audio System Evaluation Tool Project.

Summary as presented at meeting: Assess the current state of the art for the evaluation of audio digitization systems used to reformat sound recordings and plan an activity to develop tools that federal agencies (and others) can use to evaluate the performance of their recorded-sound digitizing systems.

Comments from the meeting:

- Don't forget that the analog “playback” elements are important too.
- What should be done about the “clock” that governs sampling? Will checking the clock must take place in real time?

Assess Options for Embedding Metadata in WAVE Files and Plan the Audio Metadata File Header Tool Development Project

Summary as presented at meeting: Analyze the options and practicalities for embedding metadata in WAVE files. After receiving a response and guidance from the working group regarding this analysis, proceed to develop a plan for a project to build needed software tools that will assist in embedding such data.

Comments from the meeting:

- Don't forget the emerging importance of XML in digital library. We may have to limit ourselves to doing better with the WAVE INFO chunk or the BWF bext chunk, but we need to remember XML for next time.

Video SOWs

Plan the JP2/MXF Specification Project.

Summary as presented at meeting: Plan an activity to develop profiles and application specifications for a target format for video reformatting in which JPEG 2000 frame images (ISO standard) are wrapped in MXF (SMPTE standard). The target format must also embrace sound track content, presumed to consist of LPCM encoded audio (aka AES3 encoding), and possibly also using a WAVE or BWF file wrapper. In the format under discussion, both the JPEG 2000 picture information and the LPCM sound track content are wrapped in MXF.

Comments from the meeting:

- What about uncompressed video as well as using JPEG 2000 compression encoding? Should this investigation not look at both?

- BTW: readers may be interested in this relevant BBC Web offering: <http://ingex.sourceforge.net/archive/>. The BBC page describes a well-thought-out and documented approach to reformatting videotapes, in MXF OP-1A file containers for video, audio and timecode data. There is a pointer to a white paper.

Plan the Video Engineers Roundtable

Summary as presented at meeting: Develop a plan for one or more roundtable discussions in which Video Experts discuss the many details of preparing and playing back historical video recordings, and other related matters that pertain to their reformatting and digitization. The plan is to include elements that will ensure the completion of a well-organized report from the roundtables, suitable for public dissemination.

Comments from the meeting:

- The breadth and depth of the issues pertaining to video reformatting, and the brevity of even a two-day engineers' meeting, led several in the group to point out the importance of finding ways to limit scope.

Note regarding post-meeting outcomes

Following the meeting, it was determined that the resources in the current fiscal year would permit only the execution of the first three consultancies at this time. The video engineers roundtable was deferred.

The Working Group met with the consultant, Chris Lacinak of AudioVisual Preservation Solutions, on February 18, 2009. Interested persons may wish to read the notes from that meeting, available from this Web page:

<http://www.digitizationguidelines.gov/audio-visual/documents.html>